UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,707	07/15/2003	Un-Chul Pack	5000-1-191DIV	7100

33942 7590 01/31/2006

CHA & REITER, LLC
210 ROUTE 4 EAST STE 103
PARAMUS, NJ 07652

EXAMINER	
LOPEZ, CARLOS N	
ART UNIT	**PAPER NUMBER**
1731	

DATE MAILED: 01/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/619,707	PAEK ET AL.	
	Examiner	Art Unit	
	Carlos Lopez	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 November 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *5-8 and 10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *5-8 and 10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/4/05 has been entered.

Priority

Applicant's claim for domestic priority under 35 U.S.C. 120 is acknowledged. An updated status of the parent application is requested to be placed at the first line of the specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 5-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oh et al (GB 2314077), for which US 6,519,974, its equivalent, will be referenced. Oh et al discloses an apparatus for fabricating an optical fiber. The claimed preform

cover sealing an end of a preform is deemed as Oh's cover 47 covering the upper portion of preform 46, see figure 5. As noted by Oh in Col. 6, lines 1-7, the cover 47 is coupled to a preform end in a sealed manner. The claimed gas supplier is deemed as Oh's nitrogen gas supply 48, see figure 5, which when Oh et al's glass preform is substituted with a holey optical fiber preform would be capable of preventing the inner holes from being distorted by providing nitrogen glass via cover 47. The claimed heating means installed at the other end of the preform for heating the preform to draw an optical fiber is deemed as Oh's furnace 28.

Oh notes that the flow of gas through channel 56 of the preform cover 47, generates a reduced pressure condition that partially evacuates the space between the over cladding tube 44 and the preform 46 (Col. 7,lines 23-27). The flow rate through the channel 56 will determine the extend to which the gas pressure in the space is reduced and thus control of the flow rate from nitrogen gas supply 48 will control the pressure in the space (Col. 7, lines 27-31). This arrangement provides a simple and finely adjustable means to apply reduce pressure in the space between the cladding tube and preform (Col. 7, lines 38-41). Since Oh's reducing pressure is finely adjustable it clearly indicates that the flow of the nitrogen gas, and consequently its pressure, is finely regulated. This clearly shows that a regulator for the nitrogen gas flow, or a pressure regulator as claimed by applicant, is inherently present in Oh's apparatus.

It is noted that Oh's disclosure does not limit its use to any particular type of preform. Thus Oh's device is capable of being used to draw a holey optical fiber preform. In fact as noted in MPEP 2115 [R-2], "Expressions relating the apparatus to contents

thereof during an intended operation are of no significance in determining patentability of the apparatus claim." Ex parte Thibault, 164 USPQ 666, 667 (Bd. App. 1969). Furthermore, "[i]nclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims." In re Young, 75 F.2d *>996<, 25 USPQ 69 (CCPA 1935) (as restated in In re Otto, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963))." Thus the claimed limitation that the fiber preform be a holey optical fiber prefrom having a plurality of air holes disposed in a vertical direction is deemed as being obvious to a person of ordinary skill in the art at the time the invention was made. Oh et al, in not specifying the type of optical preform it intends to manufactured, clearly envisages the use of any type of preform, which includes the claimed holey optical fiber prefrom known in the art.

A person of ordinary skill in the art in view of Oh et al's patent, would readily recognize that the apparatus of Oh et al can be used to manufacture holey optical fibers with reasonable expectation of success and no unexpected results.

Hence applicant is merely substituting the optical fiber preform of Oh et al with a more specific known type of optical fiber preform; a substitution, that a person of ordinary skill in the would clearly envisage from the teachings of Oh et al.

Moreover, it is unclear how the article being worked on, in the instant case a holey optical fiber preform, would somehow provide a structural patentable distinct feature to an apparatus that is working on another type of preform as in the case of Oh etl al. The fact that applicant now amends the claims to merely further define the holey optical fiber prefrom does not structurally distinguish the claimed apparatus per se of Oh et al. Applicant is invited to point out the structural differences an article being worked on by apparatus endows certain structural features to the apparatus and makes the

mentioned apparatus distinct from another apparatus but that is working on a different preform.

Additionally, the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In the instant case the apparatus of Oh is capable of performing the intended use.

As for claim 6, fixing rod 33, as shown in figure 5, is attached to the top of preform 46 and its capable of holding it in a stationary position.

As for claim 8, the claimed tubular preform, sealing means, storage means, regulating means and heating means is deemed respectively as the above noted preform, cover 47, gas supplier 48, the inherent pressure regulator and furnace 28 of Oh et al. Additionally, it is deemed that the inherent pressure regulator of Oh would supply a constant gas flow in order to maintain the above noted space between the over cladding tube and preform.

Response to Arguments

Applicant's arguments filed 9/30/05 have been fully considered but they are not persuasive. Applicant's arguments are addressed above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lopez whose telephone number is 571.272.1193. The examiner can normally be reached on Mon.-Fri. 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571.272.1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CL